# INDEX OF SUBJECTS


Arabica coffee in Kenya, effects of irrigation, mulch and N-fertilizers on yield components of (Cannell), 225

*Arachis hypogaea* (groundnuts) in Northern Nigeria, uptake of sulphur and other nutrients by (Bromfield), 55

Boron in oil palm, application, absorption and translocation of. I. Methods of application and types of boron fertilizer. II. Age of palm, frequency of application and influence of N and K. III. Leaf analysis for diagnosing boron requirements (Rajaratnam), 129, 141, 257

Boron in some Malaysian soils, movement and accumulation of (Rajaratnam), 233

Canadian Wonder beans in Malawi, field trials with (Spurling), 97

Carrot production in Northern Nigeria, cultivars, fertilizers, crop protection and economics of (Green), 47

*Cenchrus ciliaris* at Ukiriguru, Western Tanzania, effects of nitrogen and phosphate on (Walker), 107

Cereal foliage diseases, size and shape of plots for estimating yield losses from (James and Shih), 63

Cocoa swollen-shoot virus on young bearing trees of a range of varieties, effects of Ghanaian (Lockwood), 31

Coffee trees, redistribution of fungicides in (Pereira, Mapother, Cooke and Griffiths), 209

*Conditions of agricultural growth*, by Ester Boserup, reviewed by G. Allanson, 288

Corn and millet, effects of brackish irrigation water and fertilizers on (Ravikovitch), 181

Cotton and mustard, *see Cynodon dactylon*

Cotton and wheat, water requirements of, on a high water-table soil under arid conditions (Khan, Ahmad and Sharar), 41

Cotton boll period, interactions of genotype and temperature on, and their implication in breeding (Yfoulis and Fasoulas), 193

Cotton seed, effects of pre-sowing high temperature stress on seedling emergence and yield of (Khan, Ahmad and Hussain), 9

Cotton in Uganda, trials of spraying and cultural practices on. I. Agronomic and spraying implications (Davies and Wheater), 147

Cotton (Upland) in Israel, effects of soil moisture stress on two varieties of. IV. Effects of periods of stress occurrence, correlations and regressions (Marani), 121

Covariance adjustment, with particular reference to agricultural research, the interpretation of regression analysis and the (Campbell and Goodchild), 369

Cowpeas [*Vigna unguiculata* (L.) Walp.] in a humid tropical environment, effects of defoliation and topping on semi-upright (Ezedinma), 203

Cowpeas (*Vigna unguiculata*) in Sierra Leone, effects of fertilizers on harvest time and yield of (Godfrey-Sam-Aggrey), 315

*Crop production in dry regions.* Vol. I: *Background and principles.* Vol. II: *Systematic treatment of the principal crops*, by I. Arnon, reviewed by J. W. Purseglove, 92, 381

*Cynodon dactylon*, *Sorghum halepense* and *Cyperus rotundus* on cotton and mustard, competitive effects of (Horowitz), 263

*Cynodon* IB.8, effects of N and K fertilizers on, and on soil K in Southern Nigeria (Chheda and Mohamed Saleem), 249

*Cyperus rotundus*, see *Cynodon dactylon*

*Farming and food supply: the interdependence of countryside and town*, by Sir Joseph Hutchinson, reviewed by R. H. Tuck, 191

Field trials with Canadian Wonder beans in Malawi (Spurling), 97

*Fungi in agricultural soils*, by K. H. Domsch and W. Gams, reviewed by D. M. Webley, 384

Fungicides in coffee trees, redistribution of (Pereira, Mapother, Cooke and Griffiths), 209

*Grasses and legumes in British agriculture*, ed. by C. R. W. Spedding and E. C. Diekmahns, reviewed by D. J. Griffiths, 96

Grazing experiments, the choice of fixed or variable stocking rates in (Wheeler, Burns, Mochrie and Gross), 289

Groundnut pod-filling by lime and gypsum application to some soils in Northern Malawi, improvement of (Laurence), 353

Groundnuts (*Arachis hypogaea*) in Northern Nigeria, uptake of sulphur and other nutrients by (Bromfield), 55

Heterosis in crosses of *Theobroma cacao* (Atanda), 23

*Hevea* clones, a rapid laboratory method of assessing susceptibility of to *Oidium heveae* (Lim), 275
*History of the Colonial Agricultural Service*, by G. B. Masefield, reviewed by F. W. Toovey, 189

*Instrumentation in agriculture*, by S. W. R. Cox and D. E. Filby, reviewed by J. K. R. Gasser, 383
Intercropping maize or sorghum with cowpeas, pigeon peas or beans, effects of (Enyi), 83
Iron deficiency chlorosis in fruit trees in Iran, incidence and control of (Bolle-Jones, Sanei and Pahlavani), 241
Irrigation, mulch and N-fertilizers on yield components of arabica coffee in Kenya, effects of (Cannell), 225

Leaf expansion and soil temperature in *Zea mays* (Watts), 1

Maize at Samaru, Nigeria, time of application of nitrogen fertilizer to (Jones), 113
Maize or sorghum, effects of intercropping with cowpeas, pigeon peas or beans (Enyi), 83
Maize (*Zea mays*) in Western Nigeria, effects of seed bed preparation and time of planting on (Lal), 303
Malaysian soils, movement and accumulation of boron in (Rajaratnam), 233
Millet and corn, effects of brackish irrigation water and fertilizers on (Ravikovitch), 181
Mustard and cotton, *see Cynodon dactylon*

N and K fertilizers on *Cynodon* IB.8 and on soil K in Southern Nigeria, effects of (Chheda and Mohamed Saleem), 249
Nematodes in stored yams (Thompson, Been and Perkins), 281
Nitrogen and phosphate on *Cenchrus ciliaris* at Ukiriguru, Western Tanzania, effects of (Walker), 107
Nitrogen fertilizer, effects of on yield of wheat in Northern Sudan (Ahmed and Dafalla), 347
Nitrogen fertilizer, time of application of, to maize at Samaru, Nigeria (Jones), 113
Nitrogen under dry land conditions, nature of competition between weeds and rice for (Chakraborty), 279

*Oidium heveae*, a rapid laboratory method of assessing susceptibility of *Hevea* clones to (Lim), 275
Oil palm, application, absorption and translocation of boron in. I. Methods of application and types of boron fertilizer. II. Age of palm, frequency of application and influence of N and K. III. Leaf analysis for diagnosing boron requirements (Rajaratnam), 129, 141, 257
Oil palm, effects of plant density on growth and yield of (Corley), 169
*Oils and oil seeds*, by V. J. Godin and P. C. Spensley, reviewed by A. H. Bunting, 91

Phosphate and nitrogen on *Cenchrus ciliaris* at Ukiriguru, Western Tanzania, effects of (Walker), 107
*Proceedings of the fifth meeting of the maize and sorghum section of Eucarpia*, ed. by I. Kovács, reviewed by T. D. Johnston, 94

*Recent advances in plant nutrition*, ed. by R. Samish, reviewed by G. W. Cooke, 93
Regression analysis and the covariance adjustment, with particular reference to agricultural research, the interpretation of (Campbell and Goodchild), 369
Rice and weeds, nature of competition between, for nitrogen under dry land conditions (Chakraborty), 219
Rice experimental fields, residual effects of unplanted alleys in (Gomez and Duangratana), 365

Sesame, genetic studies in. II. Inheritance of flower colour and number of locules per pod (Khidir), 361
Soil moisture stress on two varieties of upland cotton in Israel. IV. Effects of periods of stress occurrence, correlations and regressions (Marani), 121
Soil temperature and leaf expansion in *Zea mays* (Watts), 1
*Sorghum halepense*, see *Cynodon dactylon*
Sorghum hybrids, component analysis of yield responses to drought of (Blum), 159
Sorghum or maize, effects of intercropping with cowpeas, pigeon peas or beans (Enyi), 83
Sorghums, Nigerian, effects of date of sowing on photosensitive (Andrews), 337
*Study of soil in the field* (5th ed.), by G. R. Clarke and P. Beckett, reviewed by J. M. Hodgson, 96
Sugarcane, effects of roguing and yield and smut of (James), 73
Sugarcane populations in Fiji, mass selection of commercial hybrid (Brown and Daniels), 321
Sunflower, effects of CCC and moisture stress on (Lovett and Campbell), 329
*Survey of instruments for micrometeorology*, by J. L. Monteith, reviewed by J. J. Landsberg, 382

*Theobroma cacao*, heterosis in crosses of (Atanda), 23
*Tropical crops: monocotyledons vols* 1 *and* 2, by J. W. Purseglove, reviewed by E. E. Cheesman, 287
Tropical forest ochrosol under continuous cropping, decline in fertility status of a (Ofori), 15

*Viability of seeds*, ed. by E. H. Roberts, reviewed by W. Heydecker, 190
*Vigna unguiculata* (cowpeas) in Sierra Leone, effects of fertilizers on harvest time and yield of (Godfrey-Sam-Aggrey), 315
*Vigna unguiculata* (L.) Walp. (cowpeas) in a humid tropical environment, effects of defoliation and topping on semi-upright (Ezedinma), 203

Water requirements of wheat and cotton on a high water-table soil under arid conditions (Khan, Ahmad and Sharar), 41
Weeds and rice, nature of competition between, for nitrogen under dry land conditions (Chakraborty), 219
Wheat and cotton, water requirements of, on a high water-table soil under arid conditions (Khan, Ahmad and Sharar), 41
Wheat, effect of time and rate of application on uptake of fertilizer N by (Hamid), 59
Wheat in Northern Sudan, effects of fertilizer nitrogen on yield of (Ahmed and Dafalla), 347

Yams, nematodes in stored (Thompsno, Been and Perkins), 281

*Zea mays* (maize) in Western Nigeria, effects of seed bed preparation and time of planting on (Lal), 303
*Zea mays*, soil temperature and leaf expansion in (Watts), 1

# INDEX OF AUTHORS


AHMAD, S., *see* KHAN, R. A.

ALLANSON, G. Review of *The conditions of agricultural growth*, by Ester Boserup, 288

ANDREWS, D. J. Effects of date sowing on photosensitive Nigerian sorghums, 337

ATANDA, O. A. Heterosis in crosses of *Theobroma cacao*, 23

BEEN, B. O., *see* THOMPSON, A. K.

BLUM, A. Components analysis of yield responses to drought of sorghum hybrids, 159

BOLLE-JONES, E. W., SANEI, F. and PAHLAVANI, A. Incidence and control of iron deficiency chlorosis in fruit trees in Iran, 241

BROMFIELD, A. R. Uptake of sulphur and other nutrients by groundnuts (*Arachis hypogaea*) in Northern Nigeria, 55

BROWN, A. H. D. and DANIELS, J. Mass selection of commercial hybrid sugarcane populations in Fiji, 321

BUNTING, A. H. Review of *Oils and oil seeds*, by V. J. Godin and P. C. Spensley, 91

BURNS, J. C., *see* WHEELER, R. L.

CAMPBELL, DESNEE A., *see* LOVETT, J. V.

CAMPBELL, N. A. The interpretation of regression analysis and the covariance adjustment, with particular references to agricultural research, 369

CANNELL, M. G. R. Effects of irrigation, mulch and N-fertilizers on yield components of arabica coffee in Kenya, 225

CHAKRABORTY, T. Nature of competition between weeds and rice for nitrogen under dry land conditions, 219

CHEESMAN, E. E. Review of *Tropical Crops: Monocotyledons*, vols 1 and 2, by J. W. Purseglove, 287

CHHEDA, H. R. and MOHAMED SALEEM, M. A. Effects of N and K fertilizers on *Cynodon* IB.8 and on soil K in Southern Nigeria, 249

COOKE, B. K., *see* PEREIRA, J. L.

COOKE, G. W. Review of *Recent advances in plant nutrition*, ed. by R. Samish, 93

CORLEY, R. H. V. Effects of plant density on growth and yield of oil palm, 169

DAFALLA, D. A., *see* GABAR AHMED, A. G. A.

DANIELS, J., *see* BROWN, A. H. D.

DAVIES, J. C. and WHEATER, R. O. Trials of spraying and cultural practices on cotton in Uganda. I. Agronomic and spraying implications, 147

ENYI, B. A. C. Effects of intercropping maize or sorghum with cowpeas, pigeon peas or beans, 83

EZEDINMA, F. O. C. Effects of defoliation and topping on semi-upright cowpeas [*Vigna unguiculata* (L.) Walp.] in a humid tropical environment, 203

FASOULAS, A., *see* YFOULIS, A.

GABAR AHMED, A. G. A. and DEFALLA, D. A. Effects of fertilizer nitrogen on yield of wheat in Northern Sudan, 347

GASSER, J. K. R. Review of *Instrumentation in agriculture*, by S. W. R. Cox and D. E. Filby, 383

GODFREY-SAM-AGGREY, W. Effects of fertilizers on harvest time and yield of cowpeas (*Vigna unguiculata*) in Sierra Leone, 315

GOMEZ, KWANCHAI A. Residual effects of unplanted alleys in rice experimental fields, 365

GREEN, J. H. Cultivars, fertilizers, crop protection and economics of carrot production in Northern Nigeria, 47

GRIFFITHS, D. J. Review of *Grasses and legumes in British agriculture*, ed. by C. R. W. Spedding and E. C. Diekmahns, 95

GRIFFITHS, E., *see* PEREIRA, J. L.

GROSS, H. D., *see* WHEELER, R. L.

HAMID, A. Effect of time and rate of application on uptake of fertilizer by wheat, 59

HEYDECKER, W. Review of *Viability of seeds*, ed. by E. H. Roberts, 190

HODGSON, J. M. Review of *The study of soil in the field* (5th ed.), by G. R. Clarke and P. Beckett, 96

HOROWITZ, M. Competitive effects of *Cynodon dactylon*, *Sorghum halepense* and *Cyperus rotundus* on cotton and mustard, 263

HUSSAIN, S., *see* KHAN, R. A.

JAMES, G. L. Effects of roguing on yield and smut of sugarcane, 73

JAMES, W. C. and SHIH, C. S. Size and shape of plots for estimating yield losses from cereal foliage diseases, 63
JOHNSTON, T. D. Review of *Proceedings of the fifth meeting of the maize and sorghum section of Eucarpia*, ed. by I. Kovács, 94
JONES, M. J. Time of application of nitrogen fertilizer to maize at Samaru, Nigeria, 113

KHAN, R. A., AHMAD, S. and HUSSAIN, S. Effects of pre-sowing high temperature stress on seedling emergence and yield of seed cotton, 9
KHAN, R. A., AHMAD, S. and SHARAR, M. S. Water requirements of wheat and cotton on a high water-table soil under arid conditions, 41

LANDSBERG, J. J. Review of *Survey of instruments for micrometeorology*, by J. L. Monteith, 382
LAURENCE, R. C. N. Improvement of groundnut pod-filling by lime and gypsum application to some soils in Northern Malawi, 353
LIM, T. M. A rapid laboratory method of assessing susceptibility of *Hevea* clones to *Oidium heveae*, 275
LOCKWOOD, G. Effects of Ghanaian cocoa swollen-shoot virus on young bearing trees of a range of varieties, 31
LOVETT, J. V. and CAMPBELL, DESNEE A. Effects of CCC and mixture stress on sunflower, 329

MAPOTHER, H. R., *see* PEREIRA, J. L.
MARANI, A. Effects of soil moisture stress on two varieties of upland cotton in Israel. IV. Effects of periods of stress, occurrence, correlations and regressions, 121
MOCHRIE, R. D., *see* WHEELER, R. L.
MOHAMED SALEEM, M. A., *see* CHHEDA, H. R.

OFORI, C. S. Decline in fertility status of a tropical forest ochrosol under continuous cropping, 15
OSMAN KHIDIR, M. Genetic studies in sesame II inheritance of flower colour and number of locules per pod, 361

PAHLAVANI, A., *see* BOLLE-JONES, E. W.
PEREIRA, J. L., MAPOTHER, H. R., COOKE, B. K. and GRIFFITHS, E. Redistribution of fungicides in coffee trees, 209
PERKINS, C., *see* THOMPSON, A. K.
PURSEGLOVE, J. W. Review of *Crop production in dry regions*. Vol. I: *Background and principles*; Vol. II: *Systematic treatment of the principal crops*, by I. Arnon, 92, 381

RAJARATNAM, J. A. Application, absorption and translocation of boron in oil palm. I. Methods of application and types of boron fertilizer. II. Age of palm, frequency of application and influence of N and K. III. Leaf analysis for diagnosing boron requirements, 129, 141, 257
RAJARATNAM, J. A. Movement and accumulation of boron in some Malaysian soils, 233
RATTAN LAL. Effects of seed bed preparation and time of planting on maize (*Zea mays*) in Western Nigeria, 303
RAVIKOVITCH, S. Effects of brackish irrigation water and fertilizers on millet and corn, 181

SANEI, F., *see* BOLLE-JONES, E. W.
SHARAR, M. S., *see* KHAN, R. A.
SHIH, C. S., *see* JAMES, W. C.
SPURLING, A. T. Field trials with Canadian wonder beans in Malawi, 97

THOMPSON, A. K., BEEN, B. O. and PERKINS, C. Nematodes in stored yams, 281
TOOVEY, F. W. Review of *A history of the Colonial Agricultural Service*, by G. B. Masefield, 189
TUCK, R. H. Review of *Farming and food supply: the interdependence of countryside and town*, by Sir Joseph Hutchinson, 191

WALKER, B. Effects of nitrogen and phosphate on *Cenchrus ciliaris* at Ukiriguru, Western Tanzania, 107
WATTS, W. R. Soil temperature and leaf expansion in *Zea mays*, 1
WEBLEY, D. M. Review of *Fungi in agricultural soils*, by K. H. Domsch and W. Gams, 384
WHEATER, R. O., *see* DAVIES, J. C.
WHEELER, R. L., BURNS, J. C., MOCHRIE, R. D. and GROSS, H. D. The choice of fixed or various stocking rates in grazing experiments, 289

YFOULIS, A. and FASOULAS, A. Interactions of genotype and temperature on cotton boll period and their implication in breeding, 193